

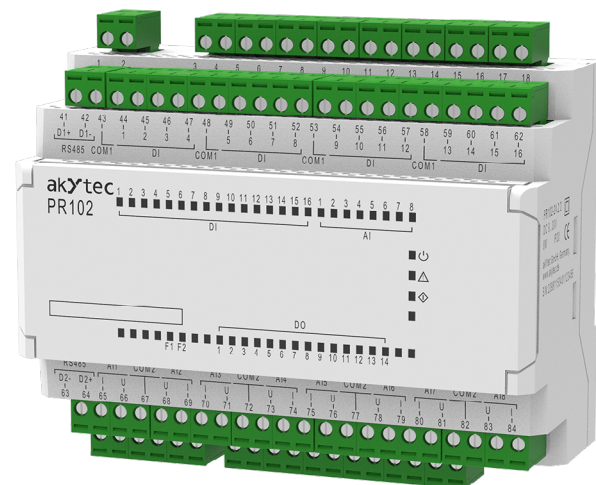
PR102

PR102 is a Mini-PLC designed to implement basic control systems for various applications such as lighting control, pumping control, ventilation and heating control, and others.

The key advantages of PR102 are its extensive functionality and high density of I/O points. Occupying only 126 mm of a DIN-rail length in a control cabinet, this Mini-PLC offers a total of 40 built-in digital and analog inputs and outputs, and two RS485 ports for communication with Modbus-RTU/ASCII-enabled devices. Furthermore, the built-in I/Os may be directly expanded with up to two extension modules of the PRM series. An application program is written in function block format in the akYtec ALP programming software available free of charge. The control algorithm is uploaded to the device memory via a micro-USB-cable connection.

Functions and features:

- Built-in 16DI + 14DO + 8AI + 2AO + 2xRS485 in one device
- A total of 40 I/Os
- 8 analog inputs, each capable of connecting:
 - RTD sensors (Pt500/1000, Ni500/1000, etc.)
 - NTC/PTC sensors
 - 4-20 mA / 0-10 V signals
 - Digital signals
- 2 analog outputs configurable for 4-20 mA or 0-10 V
- 2xRS485 interfaces with Modbus RTU / ASCII | Master/Slave
- PRM-expandable: up to 32 additional I/O points over an internal bus with no loss in performance
- Real-time clock
- USB-powered in the programming mode



16 digital inputs

16DI

14 digital outputs

14DO

8 analog inputs

8AI

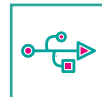
2 analog outputs

2AO

Modbus RTU/ASCII | RS485

Modbus
RS485

USB interface



Built-in real-time clock



DIN rail mounting



Software at no charge



Ambient temperature



Technical Data:

General	
Power supply	24 (9...30) V DC
Power consumption, max.	8 W
Real Time Clock	Backup 5 years (CR2032)
Real Time Clock accuracy	± 3 s/day
Extension modules	up to 2 PRMs
Programming	
Programming environment	akYtec ALP
Programming language	FBD
Programming interface	Mini-USB
Memory	
ROM	128 kB
RAM	32 kB
Retain memory	1016 Byte
Communication	
Interface	2x RS485
Protocols	Modbus RTU / ASCII (Master / Slave)
Baud rate	9.6...115.2 kBit/s
Digital inputs	
Quantity	16
Type	Switch contact
Logical states	
1	8.5...30 V DC (2...5 mA)
0	-3...+5 V DC (0...15 mA)
Galvanic isolation	none
Universal inputs	
Quantity	8
Mode	Analog / Digital
Galvanic isolation	none
Analog input	4-20 mA, 0-10 V, 0-300 kohm Pt1000, PTC, NTC...
ADC resolution	12 bit
Digital outputs	
Quantity	14
Type	relay, NO
Galvanic isolation	individual
Switching capacity	
AC	5 A, 250 V (resistive load)
DC	3 A, 30 V
Minimum load current	10 mA (at 5 V DC)
Analog outputs	
Quantity	2
Analog outputs	4-20 mA, 0-10 V
Permissible load	12...30 V
DAC resolution	12 bit
Galvanic isolation	individual
Environment	
Ambient temperature	-40...+55 °C
Storage temperature	-25...+55 °C
Humidity	up to 80 % (at +25 °C, non-condensing)
IP Code	IP20
Enclosure	
Dimensions	123 × 108 × 58 mm
Weight	approx. 250 g
Material	plastic